

AMENDMENTS TO THE CLAIMS:

Please cancel Claims 11-37 without prejudice or disclaimer of the subject matter presented therein.

Please amend Claims 1-3, 5, and 7-10, and add new Claims 38 and 39, as follows. In accordance with the revised amendment format, all claims are presented below.

Sub  
C1  
1. (Currently Amended) An image pickup apparatus comprising:  
a plurality of pixels; and  
a color filter array of four colors disposed on said plurality of pixels,  
wherein said color filter array has a periodicity of two rows x two  
columns, and  
wherein colors of ~~four~~ color filters in a periodical unit of two rows x  
two columns are all different from each other and have fixed positions.

2. (Currently Amended) An image pickup apparatus according to claim  
1, wherein the ~~four~~ color filters in the periodical unit include a filter ~~of~~ for transmitting  
only green light in a visible light range, a filter ~~of~~ for intercepting only blue color in the  
visible light range, a filter ~~of~~ for intercepting only green light in the visible light range, and  
a filter ~~of~~ for intercepting only red light in the visible light range.

3. (Currently Amended) An image pickup apparatus according to claim  
1, further comprising ~~means for performing~~ a first operation unit which performs an  
operation of  $A + B - C - D$ , where A, B, C, and D represent signals picked up from an area  
of two rows x two columns.

4. (Original) An image pickup apparatus according to claim 3, wherein the signals A and B are disposed on a same line or on a same column, and the signals C and D are disposed on a same line or on a same column.

5. (Currently Amended) An image pickup apparatus according to claim 3, further comprising ~~means for performing a second operation unit which performs an~~ operation of  $A + C - B - D$ .

6. (Original) An image pickup apparatus according to claim 5, wherein the signals A and B are disposed on a same line or on a same column, and the signals C and D are disposed on a same line or on a same column.

7. (Currently Amended) An image pickup apparatus according to claim 1, further comprising:

~~means for reading a first read-out unit which reads out a difference~~ between: (a) an addition signal of a first row, first column signal and a first row, second column signal, and (b) an addition signal of a second row, first column signal and a second row, second column signal, ~~respectively~~ in an area of two rows x two columns ~~column~~, and

~~means for reading a second read-out unit which reads out a~~ difference between: (a) an addition signal of a first row, first column signal and a second row, first column signal, and (b) an addition signal of a first row, second column signal and a second row, second column signal, ~~respectively~~ in the area of two rows x two columns ~~column~~.

8. (Currently Amended) An image pickup apparatus according to claim 7, wherein ~~the~~ areas of two rows x two columns are disposed without any space therebetween.

9. (Currently Amended) An image pickup apparatus according to claim 1, further comprising ~~means for reading a read-out unit that reads out~~ an addition signal of all signals in an area of four rows x one column

10. (Currently Amended) An image pickup apparatus according to claim 1, further comprising ~~means for reading a read-out unit that reads out~~ an addition signal of all signals in an area of one row x four columns.

11 - 37 (Cancelled)

38. (New) A color filter array having a periodicity of two rows x two columns, wherein colors of color filters in a periodical unit of two rows x two columns are all different from each other and have fixed positions.

39. (New) A color filter array according to claim 38, wherein the color filters in the periodical unit include a filter for transmitting only green light in a visible light range, a filter for intercepting only blue color in the visible light range, a filter for intercepting only green light in the visible light range, and a filter for intercepting only red light in the visible light range.